

  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Corey I. Cheng, et al.

Serial No.: 10/766,681

Filing Date: January 27, 2004

Art Unit: 2857

Title: Improved Coding Techniques Using  
Estimated Spectral Magnitude and  
Phase Derived From MDCT  
Coefficients

July 23, 2004

Mail Stop Amendment  
Commissioner of Patents  
P.O. Box 1450  
Alexandra, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to the duty of disclosure set forth in 37 CFR § 1.56, Applicants respectfully submit the following information disclosure statement.

The disclosed references are:

U.S. patent no. 5,727,119, Davidson, et al., issued May 10, 1998, filed March 27, 1995.

Japanese patent no. 2000-048481, published February 18, 2000, application no. 1998-021719, filed July 29, 1998.

U.S. patent application no. 09/948,053, Goodwin, filed September 5, 2001, publication no. 2003/0093282 A1, published May 15, 2003.

Princen et al., "Analysis/Synthesis Filter Bank Design Based on Time Domain Aliasing Cancellation," IEEE Trans. on Acoust., Speech, Signal Proc., vol. ASSP-34, 1986, pp. 1153-1161.

Duhamel et al., "A Fast Algorithm for the Implementation of Filter Banks Based On 'Time Domain Aliasing Cancellation'," Int. Conf on Acoust., Speech and Sig. Proc., Toronto, May 1991, vol. 3, pp. 2209-2212.

Bosi et al., "ISO/IEC MPEG-2 Advanced Audio Coding," J. Audio Eng. Soc., vol. 45, no. 10, October 1997, pp. 789-814.

Lanciani et al., "Subband-Domain Filtering of MPEG Audio Signals," Proc. of 1999 Int. Conf on Acoust., Speech and Signal Proc., Phoenix, AZ, March 1999, vol. 2, pp. 917-920.

Wang et al., "On the Relationship Between MDCT, SDFT and DFT," Proc. of 5th Int. Conf. on Sig. Proc., Beijing, August 2000, vol. 1, pp. 44-47.

Wang et al., "Some Peculiar Properties of the MDCT," Proc. of 5th Int. Conf. on Sig. Proc., Beijing, August 2000, vol. 1, pp. 61-64.

Ferreira, "Accurate Estimation in the ODFT Domain of the Frequency, Phase and Magnitude of Stationary Sinusoids," IEEE Workshop on Appl. of Sig. Proc. to Audio and Acoust., October 2001, pp. 47-50.

Ferreira, "Combined Spectral Envelope Normalization and Subtraction of Sinusoidal Components in the ODFT and MDCT Frequency Domains," Proc. of 2001 IEEE Workshop on Appl. of Sig. Proc. to Audio and Acoust., New Platz, NY, October 2001, pp. 51-54.

Wang et al., "Modified Discrete Cosine Transform -- Its Implications for Audio Coding and Error Concealment," J. Audio Eng. Soc., vol. 51, no. 1/2, January/February 2003, pp. 52-61.

Daudet et al., "MDCT Analysis of Sinusoids and Applications to Coding Artifacts Reduction," Audio Eng. Soc. 114th Convention, Amsterdam, March 2003, convention paper no. 5831, pp. 1-6.

Merdjani et al., "Direct Estimation of Frequency From MDCT-Encoded Files," Proc. of 6th Int. Conf on Digital Audio Effects (DAFx-03), London, September 2003.

Applicants respectfully request that the Examiner initial the cited references shown on the enclosed form PTO-1449 and that the references be made of record in the present application.

Respectfully submitted,



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Enc. Form PTO 1449  
Cited references (14)  
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**Certificate of Mailing Under 37 CFR 1.8**

I certify that this Information Disclosure Statement and all enclosed materials are being deposited with the United States Postal Service on July 23, 2004 with sufficient postage as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450..

  
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David N. Lathrop



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## INFORMATION DISCLOSURE STATEMENT

APPLICANT  
Corey I. Cheng, et al.FILING DATE  
January 27, 2004GROUP  
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## U.S. PATENT DOCUMENTS

| *Exam. |      | DOCUMENT NUMBER | DATE    | NAME                                 | CLASS | SUB-CLASS | FILING DATE |
|--------|------|-----------------|---------|--------------------------------------|-------|-----------|-------------|
|        |      | 5 7 2 7 1 1 9   | 3-10-98 | Davidson, et al.                     |       |           | 3-27-95     |
|        | 2003 | 0 0 9 3 2 8 2   | 5-15-03 | Goodwin (U.S. Pat. App. Publication) |       |           | 9-5-01      |
|        |      |                 |         |                                      |       |           |             |
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## FOREIGN PATENT DOCUMENTS

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

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|  |  | Princen et al., "Analysis/Synthesis Filter Bank Design Based on Time Domain Aliasing Cancellation," IEEE Trans. on Acoust., Speech, Signal Proc., vol. ASSP-34, 1986, pp. 1153-1161.                           |
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|  |  | Bosi et al., "ISO/IEC MPEG-2 Advanced Audio Coding," J. Audio Eng. Soc., vol. 45, no. 10, October 1997, pp. 789-814.   |
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|  |  | Ferreira, "Accurate Estimation in the ODFT Domain of the Frequency, Phase and Magnitude of Stationary Sinusoids," IEEE Workshop on Appl. of Sig. Proc. to Audio and Acoust., October 2001, pp. 47-50.          |

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|  |  | Ferreira, "Combined Spectral Envelope Normalization & Subtraction of Sinusoidal Components in the ODFT & MDCT Frequency Domains," Proc. 2001 IEEE Appl. of Sig. Proc. to Audio & Acoust., NY, Oct 2001, pp. 51-54. |
|  |  | Wang et al., "Modified Discrete Cosine Transform -- Its Implications for Audio Coding and Error Concealment," J. Audio Eng. Soc., vol. 51, no. 1/2, January/February 2003, pp. 52-61.                              |
|  |  | Daudet et al., "MDCT Analysis of Sinusoids and Applications to Coding Artifacts Reduction," Audio Eng. Soc. 114th Convention, Amsterdam, March 2003, convention paper no. 5831, pp. 1-6.                           |
|  |  | Merdjani et al., "Direct Estimation of Frequency From MDCT-Encoded Files," Proc. of 6th Int. Conf on Digital Audio Effects (DAFx-03), London, September 2003.  |
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